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SCIENTIFIC EDUCATION.

[The lecture of Prof. D. C. GILMAN, of Yale College, on "Scientific Schools in relation to Colleges and High Schools," at the late meeting of the American Institute of Instruction at Fitchburg, was a first-class production, made all the more interesting to the audience by the enthusiasm of the speaker. The first part of the lecture related mostly to collegiate education, — the controversies in regard to it, and the changes which had taken place in it. The latter part, referring more particularly to Scientific Schools, and indicating what is to come in the direction of scientific education, we lay before our readers.]

A SUDDEN and effective impulse was given to scientific and technical education by a congressional enactment proposed, matured, and adopted under the leadership of Senator Morrill, of Vermont, then a member of the House, who received efficient co-operation, and probably the original suggestion of the bill, from individuals in different parts of the country, deeply interested in the promotion of agricultural science. The land bestowed by this act of 1862 was not directed, as many persons still suppose, to the establishment of mere agricultural schools, but to the foundation in every State of one college at least, in which the leading topics of instruction should be those branches of science most closely related to Agriculture and the Mechanic Arts, without the exclusion of literary and classical studies. It is not surprising that every loyal State stood ready to accept with promptness a grant so generous in amount, so free in its conditions, and so accordant, in its main purpose, with the demands of modern society.

Hence, without any controversy respecting the management of the long established classical colleges, education in science came at once into vogue throughout the land. In the forests of Maine, in the diggings of California, in the mines and iron-works of Pennsylvania, on the prairies of Illinois, in the work-shops of Connecticut, in the commercial marts, in the old universities, in the half-fledged colleges, in school conventions, in farmers' clubs, in educational documents, in books and journals, scientific and literary, everywhere among thoughtful Americans, the use, the methods, the objects, and the tendency of scientific and technical training have been amply, if not always wisely, considered and discussed.

The result has been that with American quickness and prodigality, and with American indifference to experience and precedent, a score and more of institutions, good, bad, and indifferent, each independent of all others, and each imperfectly manned and endowed, have been commenced within the last ten years. These infantile seminaries, some of them born out of due time, are hardly so much alike as to suggest a common parentage, or to justify a family name; though more than one of them, in daring and vigor, might be termed a young Hercules. One State maintains, from the proceeds of the national grant, an Industrial University; another, an Institute of Technology; a third, a Scientific School; a fourth, a Cornell University; a fifth, a School of Agriculture, and so on through the list. The internal organizations evinced in the requirements for admission, the courses of study, the conditions of graduation, the attainments of the teachers, and the aims of the scholars, differ more widely even than the names. The diversity arises unfortunately from the struggle for life rather than from the struggle for individuality in character, each separate foundation being more the creature of circumstances than the result of conference, forethought, and a nice adaptation of means to an end. Mistakes have doubtless been made, unwise compromises accepted, impossibilities promised, — and yet with all these drawbacks, we do not hesitate to assert that a vast amount of good has already been accomplished. In every State of the Union, there is soon to be at least one college where, without hostility towards, or the forced exclusion of, literature or the classics, nature and her

laws, science in its applications, the Creator and his works, are to be the principal subjects of study. Before the plans and methods are worked out by which this end is to be secured, we must expect that ideas crude and wise, experiments found useful and found foolish, processes demonstrated good and demonstrated bad, will be brought up for scrutiny, in all sorts of social circles, among statesmen, capitalists, scholars in literature and scholars in science, reformers, artisans, — before the country settles down upon a system of scientific and technical training, corresponding with the present condition of human knowledge and the manifold requirements of modern civilization.

From a somewhat careful examination of the various institutions created or transformed by the national grant, we have been led to make the follwing generalizations: —

1. There is at the present time in this country, a hearty and general, if not a unanimous recognition of the value of superior schools of theoretical and applied science, so that States, communities, individuals, and sometimes even classical colleges, are willing to devote large sums to the maintenance of such schools or departments. Open hostility to these modern means of education has disappeared, though there are still remnants of distrust, and sometimes of jealousy, in respect to the rapid growth of scientific colleges, on the part of those who have been trained in the classics, and who have not examined with attention the scope and purposes of the new foundations. This distrust has been occasioned in part by the incomplete and unsatisfactory training given in some places under the name of science, in part by the establishment of "partial courses" in the older colleges, and in part by the foolish tirades against literary culture which are sometimes heard from practical men; but both distrust and jealousy are rapidly disappearing before the growth of institutions in which sham and superficial science are scouted, and in which there is an obvious love of truth and culture, however it may be attained.

2. There has been a great lack of system and co-operation in the efforts which have been put forth, so that there has been an unfortunate duplication of plans, and a failure to recognize with distinctness the special wants of different parts of the country. There

has been a noteworthy confusion of the three aims just pointed out, to wit, the prosecution and encouragement of science, the application of science to industry, and the elevation of the laboring classes. It has been almost impossible to drive out of the public mind a notion that the congressional grant was bestowed for agricultural colleges; by which most persons have understood an elementary school where the sons of farmers may be trained for more effective labor on the farm. Probably, in our decentralized government, and with our deeply seated dread of national superintendence and inspection, the evils which have arisen by leaving to local boards the determination of this grant, are less than those which would have arisen from any attempt on the part of congress, or the cabinet, or any national commission, to regulate in each State the organization of these schools. Nevertheless, it is true that there is not so much harmony, nor co-operation, nor definiteness of purpose as might fitly be expected when a so-called practical people undertake a so-called practical business.

3. It is commonly conceded that schools of science should be distinct organizations from classical colleges. They may be under the same trustees, and in the same town, so as to economize wisely the use of established collections and accumulated apparatus; they may bear the name of departments in a college or university; but they should not be partial or modified courses, half as good as the classical, looked down on by the faculties and students of the classical courses. It is desirable that they should have independent funds, teachers, laws, halls, and be distinct colleges in fact, whether they are so in name or not; for, as long as there is any pretext for calling schools of science "colleges with Greek and Latin left out," they are not worthy of the name of schools or colleges of science. They must have positive and distinct merits of their own, in order to command confidence, or to be of much service; — and this is true whether they are established on entirely independent foundations, or as members of some institution or university which has already acquired the support of the community.

4. The schools of science established during the last few years have been almost wholly of the grade called technical; by which we mean that they have a predominant reference to the wants of

young men who desire to fit themselves for such pursuits as involve a knowledge of science in reference to human industry. They are schools of applied rather than of theoretical science. At Harvard and Yale the theoretical or purely scientific character is better kept up than it is in most such institutions. There is a strong desire, if I am not mistaken, to train up in these two schools investigators, scholars, men of research, observers, explorers, philosophers, writers, teachers, but really men who shall add to human knowledge, who shall advance science, and shall be the pioneers in the work of scientific education. The school at New Haven has already sent out forty-one young men to be professors and teachers in other institutions, and doubtless a corresponding number have been trained in Cambridge, though there are no published data at hand for comparison. But both these schools show also a decidedly technical character in the instructions they offer; while most of the other institutions yet established, bearing the general name of scientific schools, are chiefly or exclusively directed to training up technical men, and should therefore be classed as polytechnic schools. They may be polytechnic schools, with strong scientific tendencies, or with strong industrial tendencies; according to whether they tend to promote investigation in science, or are chiefly directed to the advancement of human industry.

Moreover, it is very hard in this country to secure from public appropriations or from private generosity, endowments for purely scientific chairs. We are not beyond the utilitarian appreciation of science; and it would doubtless be easier to secure five hundred thousand dollars, or a million, for a school of applied science, than a tenth of that sum for an institution of which the exclusive object should be to train up a body of scientific investigators. But let any one who doubts the importance of this limited and unappreciated class of students, read the recently printed address of Dr. Gould on the relations of the man of science to the com nunity, or an earlier one by Dr. Playfair, of Edinburgh, on a kindred subject.

5. The great costliness of schools of science is by no means appreciated. The necessity for having men of distinction in special investigations, and for having a great many special teachers, and for having ample means of experiment and illustration, — all this is very imperfectly understood. The readiness with which men of

truly scientific attainments are caught up to aid in the construction of public works, the development of mines, the exploration of new territory, the administration of great industrial establishments, and in numerous other services, renders it difficult to retain them as the instructors of youth, — on the meagre allowances commonly bestowed for educational services.

6. Finally, we have yet to discuss in this country a great variety of questions pertaining to scientific education, to which we have hitherto not come up. The methods to be observed in technical training; the proper preparation for scientific pursuits; the supplementary or historical and linguistic studies, which should be simultaneously pursued with scientific studies; the right mode of maintaining industrial schools, so that working men may have real scientific knowledge pertaining to their work; the right methods of teaching drawing, so that the hand may delineate truly whatever the eye observes; and the right method of training the eye, so that it may see aright, and impress vividly upon the brain the phenomena and objects of nature and art; the awakening of a love of nature in the very young, cultivating their minds by attention to, and familiarity with, the beautiful world in which they are placed, rather than confining their attention to the printed page, — all these, and many more such topics, deserve an early and careful consideration from parents, teachers, writers, and all who are interested, as who is not, in the education of the rising generation.

To sum up these various statements, we think it safe to say, that in this country the battle is fought in regard to the comparative advantages of scientific and classical education. The contest is over, though the smoke still hovers over the field, and there are some maimed and wounded still hobbling about. Enlightened persons who have looked at both sides with care enough to understand the arguments for each, are agreed in thinking that both sorts of culture are important for the welfare of human society; that for different minds different sorts of training are required; and that there is no branch of learning so old and none so new that it has not a legitimate place in a comprehensive scheme of liberal education. While much remains to be done for the endowment, expansion, and improvement of the ancient schools of linguistic culture, the old-fashioned colleges, discussions of an advanced

character are doubtless imminent respecting the best methods of scientific training, — when shall it begin, how far shall it be carried, by what means shall it be secured, how far shall it be special and how far shall it be general, and how shall it stand related to instruction in language, history, political science, and morals.

So far as we can judge, the most serious cause for apprehension yet developed, lies in the multiplicity of attempts which are sure to be made, during the next few years, to satisfy the acknowledged demands of modern society. In addition to the institutions which have received the national endowment, several of the States in the East have other similar foundations due to private liberality; and almost every one of the classical colleges, while still but half endowed, evinces a desire to assume the additional task of providing special scientific training. We are in danger of having as many and as poor scientific schools, as we have of colleges, and are in risk of scattering our forces through numerous experimental inefficient beginnings, rather than by the concentration of capital in men and funds upon a few promising and central foundations. Because schools of science are a necessity, it does not follow that a hundred of them should be begun, before a single one is adequately endowed; nor that we should endeavor to multiply too rapidly the schools of technical instruction of a lower grade, while the higher training places for teachers and investigators of science are still so imperfectly organized.

From this consideration of the general aspects of this movement, we proceed to point out its manifestations in this country.

Going back in our history for twenty years, we find that the scientific education of the country, aside from that which was incidentally given in the well-established college courses, was then confined to a very few institutions, foremost among which was the Military Academy at West Point. This admirable establishment was the school in which a large number of the civil engineers of the country were trained up, and their character as a class of trustworthy and accomplished men, well versed in mathematical discipline and its applications to the various wants of society, has done very much to give repute to scientific training, as well as to advance the construction of public works. We are accustomed to

think chiefly of our obligations to this government school for the services of its graduates in military engineering, but the co-operation afforded in a multitude of civil works should never be forgotten. The Naval School at Annapolis was then, and is still, the only establishment for instruction in nautical and hydrographic science. Besides these two government schools, there was the well-known Polytechnic School at Troy, which is now chiefly known as a school of engineering, but which was formerly as much distinguished for its instructions in such other branches of science as chemistry, geology, and natural history. Besides these, two new enterprises had in 1850 just begun to claim the attention of the public, the Lawrence Scientific School at Cambridge, and the Yale Scientific School at New Haven. There were also several half-endowed and incomplete agricultural schools. But little change occurred in these institutions during the next ten years. Several other colleges followed the example of the two oldest of the fraternity, and established, on slender foundations, scientific courses; and there were some not wholly uninstructive independent experiments. But in 1862, the whole aspect of the question changed, and the record from that time to this is exceedingly interesting.

Judging by the experience of foreign countries, and by the rapid progress of our own, it will not be long before we shall see some such development of our systems of education as this: —

I.

A very limited number of universities, certainly one, probably several, possibly many, in which all the faculties of a university will be well maintained, — Law, Medicine, Theology, and Philosophy, — to which young men will resort for the highest sort of scholastic training, and to which they should be refused admission unless they have previously been well trained for a considerable period in the institutions of the next lower or collegiate grade.

II.

A division of our colleges, doubtless hundreds in number, into two sorts, those of Letters, and those of Science. In the former, the training will be chiefly linguistic and historical, with a considerable amount of pure mathematics, and a general introduction

to chemistry and geology, and perhaps other branches of natural science. In the latter, the instruction will be largely in the applied mathematics, and in the sciences of observation and experiment, while linguistic training, especially in the modern languages, and historical studies, will not be overlooked.

In the colleges of science of this grade, professional or technical instruction will be likely to predominate over studies of a purely disciplinary character; in the college of letters, the reverse is sure to be the case.

III.

A double course in academies and high schools,— the one leading, by the discipline of Greek and Latin, to a classical college, and the other, by the discipline of the pure mathematics (algebra, geometry, and trigonometry), to the scientific colleges. Both of these courses will admit of modification, according to circumstances, for scholars who may not expect to go up to the higher colleges.

IV.

Decided improvements in our elementary public schools, in which the eye, the hand, and the ear shall all be trained, and a good preparation made for all future studies,— improvements which can be largely secured by teaching the child to observe and investigate the phenomena of nature.

ENGLISH GRAMMAR. — No. 11.

THE COMPARATIVE GRAMMAR OF THE DEMONSTRATIVE CLAUSE.

THE great underlying principles of all languages are the same. As the human mind is everywhere and in all ages the same, — possessing the same organism, embracing the same faculties, characterized by the same affections, energized by the same mental forces, and subject to the same laws, — it is obvious that among different nations the *methods of thought* must be the same.

It might therefore have been anticipated, that where a regular written language is used for the *expression* of thought, the

general methods and principles of verbal structure would be analogous. Language is not *artificial*, it is *growth*, produced spontaneously by the native forces of the human mind. It is as much the natural product of man's mental nature, as plants are the natural product of atmosphere, sun, and soil. Hence, language in its growth and *development* exhibits the same unity in diversity that characterizes all of nature's works.

In all languages, therefore, we shall find discourse made up of *sentences*, the same in character, in parts, and in the relation of those parts, as is the sentence in English. So likewise in all languages we shall find the clause-form, and this element the same precisely in general character, in the number of varieties employed, in the various functions it performs, and in the relations it sustains to the other elements in the proposition. Thus in the Latin, the Greek, the French, and the German, we have, among others, the three clause-forms which we have termed the cognate clauses. We propose now to consider these in the order in which they were discussed in the English in our previous articles; and first, therefore, —

THE DEMONSTRATIVE CLAUSE.

In the Latin there are two varieties of this clause-form, one introduced by *ut* (or *ne*=lest=that not) and the other introduced by *quod*. Both these connectives were primarily *relatives*, but in this clause-form they lose entirely their *relative* use, and are purely demonstrative in force. The same is true, as we shall see presently, of the Greek and the French demonstrative connective. This change, however, of relatives into demonstratives, is not confined to this particular case. It is not uncommon in other connectives to have this change, as well as the converse of the same, viz., demonstratives into relatives. The relative pronoun in Latin always has the force of a demonstrative, as every one knows, when it commences a sentence which is not interrogative or exclamatory in character.

All clause-forms, then, in the Latin, introduced by *ut* or *quod*= *that*, or by *ne*=*lest*=*that not* (negative form of *ut*), are demonstrative clauses. The same caution, however, in regard to the uses of *ut* must be observed, as was noted with reference to the uses of

"*that*" in English. When *ut* has the meaning of "*in order that*," "*so that*," or "*as*," it introduces a different clause entirely, viz., the conjunctive; so also when it has the meaning of "*when*" or "*how*," as it frequently does, it introduces a relative clause. These cases the sense will always enable us to distinguish. So also the *quod* form of the demonstrative clause must be distinguished from other clause-forms introduced by *quod* in the sense of "*which*" or "*because*." And here let me say, that pupils very frequently fall into this latter error of rendering *quod* "*because*." when its true force is "*that*." They thus make the clause which it introduces an adverbial when it is really a substantive element. Hence the necessity of a systematic study of this clause.

The *ut*-form of the demonstrative clause in Latin always takes the *subjunctive* mood, whereas the *quod*-form of the same regularly has the *indicative* mood. Hence, it will be convenient to speak of them as the *ut-subjunctive* form and the *quod-indicative* form of the demonstrative clause.

In point of *use*, the demonstrative clause in Latin, as in English, is always substantive. Hence it may be used as the *subject* of a proposition: "Accidit *ut magna tempestas oriretur*," it happened *that a great tempest arose* (Nepos); or the *object*, "Petivit *uti Sullam ad se mitteret*," begged *that he would send Sylla to himself* (Sall.); or an *appositive*, "Sponsionem faciunt *uti certo die legati domo proficiscerentur*," make an agreement *that upon a certain day deputies should leave home* (Sall.); or a predicative, "Lex amicitiæ est *ut neque rogemus res turpes nec faciamus rogati*," the law of friendship is *that we neither make base requests nor being asked respond to them*. Though the demonstrative clause in Latin is never used as the real object of a preposition, it has nevertheless a construction which is the exact equivalent of such an English construction. Thus, "Quid reliquum *nisi ut illis obedientes vivamus*," what remains *except that we live obedient to them* (Sall.). *Nisi* is really a connective in Latin, but has the exact force of a preposition in English. Thus we have substantially all the *five substantive uses* of the *ut-subjunctive* demonstrative clause in Latin.

This clause, in Latin, as in English, is not unfrequently represented by an *expletive*, or grammatical nominative at the head of

the proposition. "Dixit *id* agi *ut pons dissolveretur*," "said *it* was planned *that the bridge should be broken down*."

The *quod-indicative* form of the demonstrative clause has likewise all the substantive uses which characterize the *ut-subjunctive* form. Of course these two forms are not used interchangeably. Whether the *ut-subjunctive* or the *quod-indicative* form shall be used in a given case depends entirely upon the *logical character* of the clause itself, — the nature of the thought it expresses. This will be considered hereafter.

The *quod-indicative* demonstrative clause, then, may be used as *subject*, "Arcebat eum ab illicebris peccantium *quod statim parvulus sedem ac magistram studiorum Massaliam habuit*" (Tac.), "the fact that when *a very small boy he had Marseilles as the place and the preceptress of his education* preserved him from the allurements of vice"; so likewise as subject with an *expletive*, "*Illud* munus fortunæ *quod in ea urbe natus est*," *it* was a gift of fortune *that he was born in that city* (Nepos). It may be used as an *objective* or as an *appositive*, "Quarum rerum ego maxima documenta haec habeo, *quod sæpius vindicatum est in eos*," *etc.*, of which things I consider *these* as the greatest proofs, viz., *that punishment was oftener inflicted upon those*," *etc.* (Sall.); or as a *predicative*, "Summa laus senectutis est *quod ea voluptates nullas magnopere desiderat*," the highest praise of old age is *that it does not care much for physical pleasures* (Cic.) It has likewise a use similar to the prepositional use in English, as "Nec alius feminis quam viris habitus *nisi quod fœminae sæpius lineis amictibus velantur*," the dress of the women does not differ from that of the men *except that the women more frequently wear linen*, etc. (Tac.).

Thus the *quod-indicative* form of the demonstrative clause, has also all the *five* substantive uses; moreover, when used as subject, it may, as in English, refer to an *expletive*.

There are other interesting points of resemblance between this clause in English and in Latin, but our space will not permit a longer discussion.

Having mastered the demonstrative clause in English and in Latin, the pupil now proceeds to the Greek. He can but be delighted as he turns to this language, where everything seems so entirely new, to find again his old familiar friend, in all essentials precisely the

same, the unmistakable *demonstrative* clause. The particles of introduction here, as in Latin, were primarily *relatives*, and correspond very exactly to the Latin. They are ὡς=*ut* and ὅτ=*quod*. The former, like *ut*, has sometimes the sense of "*in order that*," "*so that*," "*when*," and "*as*"; the latter, like *quod*, has sometimes the meaning of "*that*" and "*because*." When used in any of these significations, these connectives do not of course introduce the *demonstrative* clause in Greek. They are, however, very frequently used in the simple sense of "*that*," and then they are the regular prepositives of the clause in question.

While ὡς and ὅτι correspond very exactly to *ut* and *quod* in force and use, they do not exhibit the same uniformity in the choice of *mood* as the Latin particles. Both take either the indicative or the optative mood, according to the nature of the thought, with perhaps this difference, leaning towards Latin usage, that ὅτι more frequently has the indicative.

Here, again, the student will find the demonstrative clause in Greek performing all the functions of a substantive element. It is used as subject: "Σαφὲς πᾶσιν ἐδόκει ὅτι ὁ στόλος εἴη ἐπὶ βασιλέα," it seemed manifest to all *that the expedition was against the king* (Xen.). As object, as: "Αἰσθάνεσθε ὡς ἀθύμως μεν ἦλθον ἐπὶ τὰ ὅπλα," ye perceive *that reluctantly they came to their arms* (Xen.). As appositive: "Εκφέρει εἰς τὸ στράτευμα λόγον ὅτι Ξενοφῶν βούλεται καταμεῖναι τὴν στρατιάν," carries to the army the report, *that Xenophon wishes the army to remain* (Xen.).

This clause is likewise used sometimes as the object of a preposition. Thus it is found particularly with πλὴν=except.

If, now, the pupil passes to the *modern* languages, he will find this same grammatical element still recurring. He will now be able to recognize it easily, and cannot fail to enjoy tracing in its construction and functions in each new language the characteristic peculiarities which distinguish everywhere this interesting element.

In the French he will find it always introduced by *que=that*, which, like the demonstrative connective in Greek and Latin, is etymologically a *relative*. It takes either the indicative or the subjunctive *mood*, according to the nature of the thought to be expressed, and has all the substantive uses, including the real *prepositional* use.

The expletive used as a representative of this, in common with other clause-forms in French, is *il*. The following are some illustrations of its uses. As subject, "Il n'est pas certain *que vous avez raison*," it is not certain *that you are right*. As object, "*Voyant que ce silence fatiguait son compagnon*," seeing *that his reserve annoyed his companion* (Madame de Staël). As appositive, "J'ai acquis hier la certitude *que vous l'interessez*," I learned yesterday the fact *that you interested her* (Ibid.). As *adjunctive*, or the object of a preposition, "La *journée se passait sans qu'il en prit aucun moment pour lui même*," his journey passed without *that he devoted a moment of it to himself* (= without his devoting, etc.) (Ibid.).

So, likewise, in turning to the German, he will recognize at once the same familiar clause. Here it will be introduced by *das*, the etymological parent of the English demonstrative *that*. Thus, having once mastered this exceedingly interesting grammatical element in English, to his surprise and delight, the pupil finds it constantly reappearing in substantially the same form, and performing *precisely the same functions*, in whatever language he chooses to devote himself. Thus, the study of a new language, instead of a burden, under the stimulus of curiosity ever awakened and sustained in verifying in it the grammatical elements already known and mastered in English, becomes to him a pastime and a pleasure.

EXHIBIT OF THE DEMONSTRATIVE CLAUSE.

English. — *That* with the *Indic.*, *Subj.*, or *Potential* mood.

Latin. { *Ut* with the *Subj.* mood *only*. / *Quod* with the *Indic.* regularly.

*Greek.** { Ὡς with the *Indic.* or *Opt.* *Subj.* very rarely. / Ὅτι with the *Indic.* or *Opt.* *Subj.* very rarely.

French. — *Que* with the *Indic.*, *Cond.*, or *Subj.*

German. — *Das* with the *Indic.* or *Subj.*

In the next *Teacher* we hope to consider the Inf.-clause in the different languages.

OREAD.

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* Demonstrative clauses are rarely (chiefly in the poets) introduced by ὅπως, ὅυνεκα, and after verbs of emotion by εἰ in the sense of ὅτι or ὡς.

THE SUPERIORITY OF THE ATHENIAN INTELLECT.

BY R. L. PERKINS, A. M., OF BOSTON.

THE recent English work on "Hereditary Genius," by the English writer Galton, is now attracting much attention, from the startling views which he expressed respecting the decline in mental ability which the generations are and have been experiencing, especially since the Athenian age.

A writer in one of the Boston weekly papers calls attention to this work, and after expressing his concurrence in the views of Mr. Galton, raises a very important question, without giving, or attempting to give, any answer to it. He says, "All will agree with Mr. Galton that we are in crying want of a greater fund of ability in all stations in life; that neither the classes of statesmen, philosophers, artisans, or laborers come up to the modern complexity of their several professions. The average standard of ability at the present time should be raised. But how to do it? The plan which Plato proposed in the republic would be the Darwinian solution."

There is one expression in the article referred to which would indicate that the writer regards the inferiority of the modern intellect as the effect of *natural* causes.

He speaks of "eminently gifted men." But if the superiority of the Athenian intellect was the result of higher natural gifts, any attempts to devise a remedy for the inferiority of the modern intellect must be hopeless. The first question, then, should be, "How far have causes within human control contributed to the deterioration?"

A passage is quoted from Mr. Galton's book to show that the people of ancient Attica were far higher in mental ability than the people of Great Britain. The estimate is two degrees. "This estimate is confirmed," says Mr. Galton, "by the *quick intelligence and high culture* of the Athenian commonalty, before whom literary works were recited, and works of art exhibited, of a far more severe character than could possibly be appreciated by the average of our race, the calibre of whose intellect is easily gauged by a glance at the contents of a railway book-stall."

Now, it will be noticed, that there are only two characteristics of the Athenian mind made use of here to show their great superiority, and these are their "quick intelligence" and "high culture." But are both these natural gifts? *Quick intelligence* may or may not be the result of natural endowments; but certainly *high culture* is the result of education, or rather it is, in its primary sense, education itself, and this will contribute largely to quick intelligence.

Here, then, there are no natural causes for the higher mental ability of the Athenians. It was their higher education that gave them their superiority. On the other hand, that the calibre of the English or modern intellect can be easily gauged by the contents of a railway book-stall, is only partially true. What a man reads is but an imperfect test of the calibre of his intellect. His taste and inclination may be for books far below his real capacity, and be merely the results of a defective education.

But, in this age of boasted progress in education, we are slow to recognize defects. We are slow to perceive that our progress has been only in the multiplication of books and other appliances for education, and not at all in methods of study. The Greeks had fewer books than we have, but they studied the few they possessed with far greater severity. Mr. Galton's illustration of their mental ability shows how thoroughly they mastered their favorite authors. "Before the Athenian commonalty, works were *recited* of a far more severe character than could possibly be appreciated by the average of our race." It is said that Homer *recited* his poems as he travelled from city to city. But how few among modern authors can recite their own works. What modern institution of learning insists upon any book in its course of study being so thoroughly mastered that it can be recited as the Athenians recited theirs? No modern school would think of requiring more than a few passages, now and then, of any author to be so thoroughly studied, much less of confining the attention of its pupils to any one author until such attainments in it should be made.

It was once reported to me that Hon. George P. Marsh could repeat a certain German author *verbatim*. I wrote to him to ascertain if it was true. In reply, he said: "It is not true. I

have had too many favorite authors ever to have thoroughly possessed myself of any."

And yet Mr. Marsh has been a very thorough student, in the modern sense of these words, but not by his own confession, as the Athenians understood them.

I believe, in view of these suggestions, that the solution of the question asked above will be found only in our returning to more primitive habits of study, such habits as were necessitated in those early ages by the fewness of the books at command.

But since they have been proved to be far more efficacious than modern habits, in imparting mental strength and ability, they are no less necessary now.

WORK.

BY ALICE CARY.

Down and up, and up and down,
  Over and over and over;
Turn in the little seed, dry and brown;
  Turn out the bright red clover.
Work, and the sun your work will share,
  And the rain in its time will fall;
For Nature, she worketh everywhere,
  And the grace of God through all.

With hand on the spade, and heart in the sky,
  Dress the ground and till it;
Turn in the little seed, brown and dry;
  Turn out the golden millet.
Work, and your house shall be duly fed;
  Work, and rest shall be won;
I hold that a man had better be dead
  Than alive, when his work is done!

Down and up, and up and down,
  On the hill-top, low in the valley;
Turn in the little seed, dry and brown,
  Turn out the rose and lily.
Work with a plan, or without a plan,
  And your ends they shall be shaped true;
Work, and learn at first hand, like a man —
  The best way to *know* is to *do!*

Down and up, till life shall close,
  Ceasing not your praises;
Turn in the wild white winter snows,
  Turn out the sweet, wild daisies.
Work, and the sun your work will share,
  And the rain in its time will fall;
For Nature, she worketh everywhere,
  And the grace of God through all.

CULTIVATION OF THE PERCEPTIVE FACULTIES.

A CORRESPONDENT of the *Western Educational Review* describes a game played by the Ojibwas and other Northern Indians for cultivating these faculties. The chief, who acts the part of a teacher, has a bundle of sticks, fifty or more sometimes, sharp at one end and cleft at the other. These sticks are planted in a circle, and in the top of each is placed an object of some sort,—a bit of birch-bark, a little tobacco, some beaver fur, a strip of cloth, a feather, a fish-bone, and so on. This done, the players pass silently round, sharply scrutinizing each object in its order. The specimens are then removed by the teacher. The players then pass in turn round the circle, naming, as far as they can, the object corresponding to each stick. The one who names the most wins the prize. This is substantially the way that Houden, the magician, acquired his wonderful memory. In his Autobiography he tells how he and his brother, when children, used to amuse themselves with a similar game. They would run past a shop window, taking a sharp look at the objects exposed, then stop round the corner and tell the names of what they saw. In time they became so expert that a single glance sufficed for seeing and fixing in mind a great number of objects. A great many variations of the Ojibwa game might be introduced with profit into the primary schools. They would serve not less for recreation, than for instruction and training in perception and memory.—*Christian Union.*

Editor's Department.

THE NEW YEAR.

It is all a mistake about the year beginning in January. You go to bed a cold night the thirty-first of December, you get up a cold morning the first of January, and call it a new year. But there has n't been the least jog of the earth, or the faintest glimmer of a sign in the sky, to intimate anything of the sort. The first day of January is just like the day before it, and does n't belong at all to a new family of days. But for the habit we have of wishing each other a "Happy New Year" on that day, nobody would dream of such a thing as a new year.

The year begins in September. Ask the minister fresh from the mountains; ask the merchant right from Long Branch or Saratoga; ask the teacher just at the end of his long vacation; ask every boy and girl you meet, — all will assure you the year begins in September, the year of the Master's vineyard, the year of business, of education. Now comes a new series of days cut off from the old series by a wide interval. We wake up to new life, and take hold of our employments with new zest. We give the year a new number in January, but we make our new departures in September.

See what a commotion in the educational world! Spring, weaving its carpets of green, and pushing out leaf and flower, making our old mother earth put on her beautiful garments and sing for joy, is but a faint image of it. From University Halls down to Kindergarten nurseries, what desolation has reigned! The dust has gathered, spiders have woven their webs, and a gloomy silence has prevailed in all the school-rooms of the land. Now are thrown open the doors and windows, in comes the cheerful light, out goes the dust, and down come the cobwebs. What a rush of glorious life! Thousands of cheery voices mingle in sweet accord, and gladness rules the hour. There is an advance all along the line. The junior puts on the dignity of senior, and the freshman looks as one to "the manor born" upon the new crowd for academic honors. The High School sends to the college, the Grammar to the High, the Primary to the

Grammar. There is promotion from class to class, and a new army of little ones comes to fill the place left vacant. All are buoyant with hope, and eager for the fray.

Welcome, then, be the new year with its new work, its new hopes, its new enthusiasm!

REV. SAMUEL J. MAY.

This clergyman, of whom President White, of Cornell University, says, "He was the best, the most truly Christian man I have ever known," died at Syracuse, N. Y., July 2. The secular and religious press have pronounced eulogies upon his character, and given sketches of his life. He was a reformer, a Christian reformer, not devoting himself simply to the removal of some particular evil, but zealous in every good work. He lived to the truth. It mattered not what the state of public sentiment about him, he, as Christ's minister, had his duty to perform. Hence no good cause appealed to him in vain. With great earnestness, yet with a sweetness of spirit truly wonderful, he spoke his word, acted his part, whether men approved or frowned.

He early in life became interested in the cause of education. While settled over the parish of South Scituate, in Plymouth County, he was one of the great workers in the cause of educational reform. He, the Rev. Charles Brooks, then of Hingham, now of Medford, and Ichabod Morton, of Plymouth, were the three men in that section of the State who did most to rouse the people, and bring about the improvement of the schools. The establishment of the Bridgewater Normal School was mainly due to their efforts. Mr. May's interest in this school was very great. He visited it often, loved and honored its Principal, Mr. Tillinghast, and rejoiced in his success.

When the health of Mr. Cyrus Pierce compelled him to relinquish the Lexington Normal School, Mr. May was urged so strongly by Horace Mann to take charge of it, that he consented. Thorough in his methods, exacting in his discipline, inspiring through his love and sympathy, he won almost the adoration of his scholars. Said one of these the other day, "The earth is more sweet now that his form has been taken into its bosom to mingle dust with dust, and heaven more desirable because his spirit has entered it." When Mr. Pierce returned from Europe with restored health, Mr. May felt it his duty to resign the school into his hands. He did so, and commenced again his pulpit ministrations.

Some efforts were made to induce Mr. May to take charge of one of the Boston schools. He desired on many accounts to take such charge; but his objection to the "medal system," then in vogue, was so strong that he declined to accede to the wishes of his Boston friends.

Wherever Mr. May has been located, the course of education has felt his quickening influence. During the latter part of his life he was President of the School Board of Syracuse, and enjoyed the full confidence of all its citizens. One of its schools is named in his honor. He strenuously opposed corporal punishment, and through his influence it was prohibited in the schools of Syracuse.

Mr. May was born in Boston on the 12th day of September, 1797. He was fitted for college at the Chauncy Hall School; entered Harvard College in 1813, and graduated in 1817. Among his classmates were George Bancroft, Caleb Cushing, Samuel A Eliot, George B. Emerson, and Stephen H. Tyng. He taught school at Hingham, Concord, Beverly, and Nahant while pursuing his studies. He graduated from the Divinity School in 1820, and was ordained in 1822. It was in 1842 he was appointed Principal of the Lexington Normal School. He held the position less than two years. He removed to Syracuse in 1845, and was, at the time of his death, in his seventy-fourth year.

NORFOLK COUNTY TEACHERS' ASSOCIATION.

At the last meeting of this Association, held in Foxboro', one hundred and seventy-nine teachers were present. Of these, eight were from out of the county, — Boston sending five, Attleboro' two, and Watertown one. The remaining one hundred and seventy-one represented nineteen of the twenty-two towns in the county. According to the last report of the Board of Education, there are 507 teachers in the county.

Bellingham has 19 teachers, none attended; Braintree 23, 1 attended; Brookline 27, 10 attended; Canton 19, 11 attended; Cohasset 14, 7 attended; Dedham 43, 23 attended; Dover 8, 1 attended; Foxborough 15, 15 attended; Franklin 21, 4 attended; Hyde Park 22, 17 attended; Medfield 5, 3 attended; Medway 20, none attended; Milton 16, 12 attended; Needham 23, none attended; Quincy 35, 1 attended; Randolph 40, 3 attended; Sharon 11, 7 attended; Stoughton 27, 4 attended; Walpole 15, 7 attended; West Roxbury 42, 29 attended; Weymouth 41, 7 attended; Wrentham 21, 9 attended.

These figures show that only about 34 per centum of the teachers in the county were sufficiently interested in the meeting to attend. How does this compare with the attendance at other conventions, Mr. Editor? We certainly *hope* they can show better figures.

B.

MEETING OF THE AMERICAN INSTITUTE OF INSTRUCTION.

The forty-second annual meeting of this Association was held at Fitchburg. It commenced at two o'clock, P. M., on Wednesday, July 26, and continued through that and the following two days. The attendance was fair, the exercises were interesting and profitable, and the meeting, on the whole, will rank among the best the Institute has held. The President, Abner J. Phipps, State Agent of the Board of Education, occupied the chair.

The Rev. Mr. Jones, of Fitchburg, opened the session with prayer. After the records of the last meeting had been read by the Secretary, D. W. Jones, of Boston, the President made a brief address, bringing out the prominent facts in the history of the Institute, sketching its career of usefulness, and expressing his hope that it would be as successful in the future as in the past.

M. G. Daniell, of Boston, reported from the Board of Directors an amendment to the by-laws, which was adopted. This amendment rendered it necessary for members to pay the assessment (one dollar) laid by the Board of Directors in order to obtain the advantages of reduced rates at hotels and on railroads, and provided that those paying the assessment should each receive a copy of the published proceedings.

Miss Elizabeth P. Peabody, of Cambridge, read an excellent paper upon "Kindergartening, the Gospel for Children." The hall being large and in a noisy locality, it was exceedingly difficult to follow the speaker. Her voice and manner are better adapted to a parlor or small hall; when she can be heard, she is sure to enlist the sympathies, even if she does not convince the judgment, of her auditors. She showed the principles upon which "kindergartening" was founded, and traced its development. Specimens of the work of young children were exhibited. In regard to the objection of expense, she boldly affirmed that it would be altogether more economical in the long run to begin upon the kindergarten plan. One city, St. Louis, had recognized the truth, that the younger the children to be taught, the greater the qualifications required for their teachers, and the higher should be the salary paid them. She said in closing: —

"This sub-structure must be moral education. As the Gospel preached to men who had grown up in a world lying in darkness and sin, was *repent and reform* and be forgiven; so the gospel for *children*, whom Christ pronounced already of the kingdom of heaven, and set in the midst of his disciples, to show them that before they could *enter* — much more take the highest places in it — they must become as little children, is to keep the heart diligently; for out of it are the issues of life, and form the mind in the light of that wisdom which makes life a blessing to ourselves and others."

Henry E. Sawyer, of Middletown, Ct., said, so far as his observation had enabled him to determine, he had no doubt that the germ of the true remedy for much of the difficulty in common schools, has been presented in the kinder-

garten. He did not believe that children are naturally stupid, though teachers may perhaps complain of stupid scholars. How did they become so? Without extending his suggestions, he inquired whether it would be practicable, in graded schools, to introduce kindergarten training for younger classes, with our school-houses constructed as they are at present.

Miss Peabody thought there would be no difficulty; it was only necessary to have tables on one side of the room around which the children can stand. It was desirable to have a piece of ground outside to cultivate plants; but for the want of it flower-pots could be employed. No teacher should have more than twenty or twenty-five pupils; children from three to six or seven years of age ought not to be in school more than three or three and a half hours a day; and during that time there should be a great variety of exercises, and these changed from day to day. These schools do not belong to the public school system in Germany, but are outside of it.

Gen. John Eaton, Jr., Commissioner of Education, Washington, D. C., was unexpectedly present in the evening, and was enthusiastically received. His lecture, "American Education Progressive," embodied much valuable educational history. He traced educational progress through associative action, legislative enactments, schools, text-books, educational periodicals. The work now going on, especially in the South, was alluded to, and especial emphasis laid upon the work to be done. He was earnest and eloquent. It is evident he is gaining a wide outlook, and a clear comprehension of the country's educational needs.

After the lecture, Miss Miller, of Concord, N. H., gratified the audience by the recitation of a few selections of varied character.

The meeting Thursday morning was opened with prayer by Rev. H. B. Blake, of Wilmington, N. C. The President appointed as

Committee on Nominations. — H. E. Sawyer, of Middletown, Conn.; J. S. Barrell, of Lewiston, Me.; M. C. Stebbins, of Springfield, Mass.; Ariel Parish, of New Haven, Conn.; G. T. Littlefield, Mass., and A. C. Hardy, of Concord, N. H.

On Resolutions, — J. W. Dickinson, of Westfield; D. N. Camp, of New Britain, Conn., and G. T. Fletcher, of Castine, Me.

On Teachers and Teachers' Places, — B. F. Tweed, of Charlestown, and H. F. Harrington, of New Bedford.

W. T. Harris, of St. Louis, Mo., was introduced. He read a fine paper upon "Prescription in Modern Education, — its Province." The teacher, more than others, is likely to be cramped by his employment. He needs relief and recreation. He must resort to the works of genius, and hold daily converse with superior minds. Human life is a process of development. There are three great divisions of human history, — savage life, the civilizations of the East, and that state of society now evolving in Europe and America. The relation of prescription to spontaneous life assumes a new form in each. The problem is to reconcile spontaneity and arbitrary prescription. Methods of instruction were considered, and the necessity of respecting mental habits shown.

A. Bronson Alcott, of Concord, followed, saying: I have not often heard

the great subject of education, to which I have devoted some years of my life, treated in so admirable and so profound a manner. It makes us realize something to what a profession we belong; and if there is any profession in the world which requires the profoundest thinking, the finest culture, and all that belongs to what we call nobility of character, it is ours. We have heard in this half-hour the results of the finest thinking of all the world.

This intimates to me how important it is that teachers should be superior and cultivated men and women. If the mind obeys laws as inevitable as the laws of gravitation, and all thought is governed by laws, then does not it become the teacher to comprehend those laws and obey them in the school-room? For he cannot work in an arbitrary manner. If he go against the law of thought, the law of thought crushes him, and he makes no impression. He who invites, therefore, and calls out the mind, not he who impresses a doctrine on the mind, is the teacher, obeying the laws honestly, and taking his clew from the knowledge of the mind.

John D. Philbrick, of Boston, said: The whole country is indebted to a man who will prepare such a lecture. What if all our teachers were studying in this way? And I know some teachers who are doing this. I could take you into a school where the ideas presented to us to-day are seen in the concrete, where this great law of prescription is the controlling law; and the pupils go out into the world familiar with the great work of combining and reconciling the idea of obedience to law and institutions, with the idea of independence of action and of thought. That is the solution of the great matter of school discipline. I am very glad that I have had an opportunity to listen to this lecture; for if we are to make any progress in education in this State, we must understand the philosophy of the subject. We must seek our recreation in the study of the great philosophers and poets, and we shall gradually get an insight into the subject of education.

Miss Peabody next spoke of some features of the system advocated by the lecturer, which were not in accordance exactly with her ideas, though, as a whole, she considered it, to use her own words, "a splendid lecture." She then went on to speak at considerable length of the doctrines of Froebel, and of his methods as introduced in Kindergarten schools.

The next exercise was a paper by Rev. H. N. Hudson, of Boston, on "The Study of History in our Schools." He said the statistics of the Boston Public Library showed that some 5,000 of the worst books in that rich collection were read more than all the other 150,000 volumes put together. From this he drew the inference that the public taste was a vitiated one, even going so far as to say that it was doubtful whether the majority of people would not be better off if they did not know how to read. He proceeded to criticise severely the present method of teaching history in the public schools. He thought that nothing but mere scraps of uninteresting information were now given to children, and the mode of imparting these he considered very defective. He favored the introduction of the best works of the most celebrated authors into the schools, and instead of mere verbal recitations he would combine a reading exercise with

interesting conversation on the various subjects which the lessons might contain. Facts would thus be permanently fixed in the mind, while an interest would be excited, and the beneficial results would be felt in all future years.

At the conclusion of the paper, John Kneeland, of Boston, said there was one thing about it that pleased him. It seemed to mark a "new departure." For a long time grammar has been berated by all speakers and writers upon the subject, till it has become the best-abused of all studies. But when he heard the speaker declare history to have become "the dreariest of all studies," he felt like hurrahing for grammar. Another thing he liked about the paper. There was no mistaking its points. He could not agree with them all, as he thought history was taught better than the speaker gave credit for. He thought Mr. Hudson's plan excellent for young men and women of some cultivation, but he could not exactly make out from it how history should be taught to the boys and girls in our public schools.

Mr. Kneeland proceeded: There is a method of teaching history, which I regard as useless, worse than useless; and that is, requiring the contents of text-books to be committed to memory, and recited word for word, page after page. This was extensively done, and is done in a few schools now. But generally the method followed is quite a different one, and far better; and as far as my observation goes, I think I can assure the speaker that history is not the dryest of studies, but on the contrary is a study in which scholars are generally interested, and very many scholars extremely so. And I do think, strange as it may appear, that some of the text-books are very well adapted to the wants of young scholars. I take the ground, just the opposite of that of the speaker, that children do want, first, a good outline of history. I do not think you can put a book into a school, and make that book responsible for the history taught in the school. It is the teacher who is to teach history; the book is to be simply his aid. What does he want of a book but a simple and well-connected statement of important facts, reliable facts? These may be committed to memory, in their proper connection, to the extent he pleases. It is not a bad idea to have some little knowledge of history, though one does not know all. I know some good people who were very much chagrined to hear their almost grown-up daughter ask, who Columbus was. It is certainly very well for all young men and women to be acquainted with Columbus, and also with many other historical characters, even though not educated up to an appreciation of Plutarch and Shakspeare.

With the speaker, in his desire to elevate the taste of our pupils, we must all agree. With his views in that respect I most heartily concur. We spend much time in teaching scholars how to read; we should spend much more than we do in teaching them what to read.

Rev. Mr. Hudson had no doubt that most teachers made the teaching of history better than the books. He did not want anything to do with outlines. He would rather take a small portion of the best writers, and have his pupils read that to him, and make it an exercise in reading as well as in history. They will

thus acquire a taste for history. English literature should be taught in the same way. He had all his pupils read in classes in Shakspeare ; and by having them under his direction for two years, he could "stick Shakspeare so int their minds that it will never be lost." That was the best thing that could be done for them mentally and morally, for this world and the next. Being carried through four of Shakspeare's plays, they will then go on with the whole.

Mr. Kneeland did not think a hundred or two of gold beads were any the worse for being strung. A good outline of the history of a country in the mind will serve to hold in their proper place and relations such other historical facts as may be afterwards learned. For instance, take a class in Jewish history. Certain events may be dwelt upon and fixed in the mind. Say, the call of Abraham, about B. C. 2000, the Exodus, about B. C. 1500, the building of Solomon's temple, about B. C. 1000, and the building of the second temple about B. C. 500. Next, the successive steps which led from one to the other, not simply as dry statements of fact, but in connected story. Now, I say that such an outline of Jewish history will be of great assistance to the learner in understanding and remembering whatever he may hereafter read in relation to the Jews and their remarkable history. So in regard to the history of our own country. The teacher will supplement the book with his own knowledge, and direct what books or portions of books are to be read for further information. Thus he forms right habits of study, and lays a good foundation for historical knowledge.

Joseph White, Secretary of the Board of Education, said: I was deeply interested in that paper; as a whole, better pleased than with any paper I ever heard read on the subject of history. I went through a long and painful experience in receiving instruction and teaching. The difference between the gentleman who read the paper, and my friend Mr. Kneeland, hinges on this question, Whether in the public schools we shall teach history in regard to a knowledge of the facts of history, or so as to invite young men and young women to furnish themselves with the facts after they have grown up? That is the principal question in my mind ; and I confess that I had come, some years ago, to the conclusion that I would prefer that children should be taught some brief portion of history thoroughly, with its relations to the human mind, — learn it in good, beautiful language, and thus get a taste for reading, and a knowledge of the best way to read, — than to stock the mind with as many facts as are to be found in an encyclopædia. The difficulty with my friend's illustration is, that in his mind the beads are made of gold. If he changes the material to pewter, will he consider them worth putting on the string? I think not. I think I have seen instances where boys at an early period have been taught precisely in the way suggested by Mr. Hudson, with the most beneficial result. I have in my mind a boy who was taught in that way, and who is a rare instance of one who is not only acquainted with historical facts, but of historical relations ; and there are few men who graduated at our colleges superior in their historical knowledge. I believe history, as a general thing, is not well taught. Teachers are waking up to this thing. We have some good teachers of history, who use the

text-book as a mere reminder. Nevertheless it is important, — school life is short, is crowded, — it is of all things important that a taste for reading, and a taste for reading good books, for original historical discussions, should be acquired and perfected; and then these libraries would not be filled with so many novels. It is worth more to the schools of this generation to acquire that taste, that power of discrimination, that love of the true and the beautiful, than to get all the knowledge in every text-book in existence.

It is in that view of it that I must fully concide with my friend who read the paper. I believe the time is arriving when we shall give more attention to this most important subject, and teach it better.

Rev. Charles Hammond, Principal of Monson Academy. I have but a word to say as to the importance of historical studies. With that class of young people who come to me from the public schools, to be instructed in Latin and Greek, I find there is an amount of ignorance of history that is truly lamentable; not only in relation to what my friend, Mr. Kneeland, calls the outlines of history, but even of all history. The first thing to be done is to set up bounds, limits, important historical facts, so that their whereabouts in time may be known, as geography teaches the whereabouts in place.

With respect to the class that have made some degree of advance in the study of Latin and Greek history, the best way is to teach it by assigned topics, as the character of such and such persons. And in relation to the matter of English or American history, I have found it to be useful to give out such a question as this: Was the banishment of Roger Williams from Salem justifiable? The first impression is, it was not justifiable. But here is a topic to be studied two or three weeks, and to be examined by reading all that can be found in relation to it, — why Governor Winthrop — one of the best men in the world — wanted to banish him. Let the scholars go to every history in the library, and search; and here you have the benefit of a school library that shall contain the leading works of history. Let them study that subject and that alone, and then make up their minds and present their reasons. I find that very soon a class of young men become just as much interested in the politics of Winthrop and Endicott, as in the politics of the present day.

As to studying history from Scott's novels and Shakspeare's plays, I have my doubts. I know there are many who have no other knowledge of history except that which they obtained from such sources. A question as to the character of Richard III would be a fair one for an advanced class, as to whether Shakspeare represents him correctly. But I only mention this as a way that I have sometimes resorted to in teaching history to awaken an interest in historical subjects.

Mr. Kneeland thought Mr. White had hardly stated the difference between his position and that of Mr. Hudson. It seemed to him that the question between them was whether one should teach the important facts of history in their connection, or some elegant statement of particular facts.

At the commencement of the afternoon session, a committee of the Directors appointed to consider the future interests of the Institute, reported, through

their chairman, D. N. Camp, of New Britain, Ct., a series of resolutions embodying recommendations which led to an earnest discussion. The time having arrived for the paper announced in the programme, the resolutions were laid upon the table.

C. C. Perkins, of Boston, then read a finely written paper, on "The Importance of Drawing as a Branch of General Education."

Gen. Henry K. Oliver, of Salem, followed with an exceedingly interesting paper, "How I was Taught." It abounded in wit and humor, and clearly brought out the contrast between the olden time and the present.

The question, "How far may the State provide for the education of her children at public cost?" gave rise to an earnest and able discussion. It turned, however, in the direction of compulsory education. Mr. White, Gen. Oliver, H. F. Harrington, of New Bedford, Leander Wetherell, of Boston, M. A. Warren, of Charleston, S. C., Richard Edwards, of Normal, Ill., and Warren Johnson, of Augusta, Me., took part.

In the evening came the lecture of Prof. D. C. Gilman, of Yale College, on "Scientific Schools in relation to Colleges and High Schools," the concluding part of which is the leading article in the present number.

Prof. Lewis B. Monroe, of Boston, gave a series of readings, illustrative of what he considered should be the style of school-reading, to the great gratification of the audience.

The Friday morning session was opened with prayer by Rev. R. M. Sargent, of Princeton. The Treasurer's report was made and accepted. The finances of the Association were shown to be in a favorable condition.

The resolutions, reported by the committee to consider the future interests of the Institute, laid upon the table yesterday, were taken up for discussion. The first resolution was adopted with great unanimity and enthusiasm. It reads as follows: —

Resolved, That the American Institute of Instruction continue its work upon the same general plan which has been pursued during the past forty-one years of its existence.

The second resolution, recommending the seeking of pecuniary aid from the several New England States, excited considerable discussion, and was finally rejected.

Richard Edwards, Principal of the Illinois State Normal School, spoke on "The Causes of Failure in the Work of Teaching." His remarks were instructive, and were listened to with great attention. Mr. Edwards believes strongly in enthusiasm, and is a good illustration of the enthusiastic worker.

Warren Johnson, of Maine, State Superintendent of Schools, read a concise and practical paper on "State Uniformity of Text-Books," in which he argued that such uniformity would be more economical and secure better books.

The first business of the afternoon session was the election of officers. The list reported by the Committee on Nominations was elected, as follows: —

President, — Abner J. Phipps, West Medford, Mass.

Vice-Presidents, — William Russell, Lancaster, Mass.; Henry Barnard,

Hartford, Conn.; Ariel Parish, New Haven, Conn.; George B. Emerson, Boston, Mass.; Nathan Hedges, Newark, N. J.; Daniel Leach, Providence, R. I.; Zalmon Richards, Washington, D. C.; John W. Bulkley, Brooklyn, N. Y.; David N. Camp, New Britain, Conn.; John D. Philbrick, Boston, Mass.; Ebenezer Hervey, New Bedford, Mass.; Henry E. Sawyer, Middletown, Conn.; D. B. Hagar, Salem, Mass.; A. P. Stone, Portland, Me.; John Kneeland, Boston, Mass.; B. G. Northrop, New Haven, Conn.; T. W. Valentine, Brooklyn, N. Y.; Joseph White, Williamstown, Mass.; Charles Hammond, Monson, Mass.; Samuel S. Greene, Providence, R. I.; John W. Dickinson, Westfield, Mass.; Merrick Lyon, Providence, R. I.; Samuel W. Mason, Boston, Mass.; A. A. Miner, Boston, Mass.; Albert Harkness, Providence, R. I.; David Crosby, Nashua, N. H.; William P. Atkinson, Cambridge, Mass.; W. E. Sheldon, Waltham, Mass.; Geo. T. Littlefield, Charlestown, Mass.; Elbridge Smith, Boston, Mass.; F. F. Barrows, Hartford, Conn.; A. G. Boyden, Bridgewater, Mass.; Warren Johnson, Augusta, Me.; James S. Barrell, Lewiston, Me.; William C. Collar, Boston Highlands, Mass.; A. C. Hardy, Concord, N. H.; J. H. Twombly, Charlestown, Mass.; H. B. Sprague, Brooklyn, N. Y.; M. C. Stebbins, Springfield, Mass.; C. O. Thompson, Worcester, Mass.; Alfred Miller, Fitchburg, Mass.; B. F. Tweed, Charlestown, Mass.

Secretary, — D. W. Jones, Boston, Mass.

Assistant Secretary, — Alfred Bunker, Boston, Mass.

Treasurer, — George A. Walton, Westfield, Mass.

Counsellors, — A. P. Marble, Worcester, Mass.; George N. Bigelow, Brooklyn, N. Y.; M. G. Daniell, Boston Highlands, Mass.; W. A. Mowry, Providence, R. I.; N. A. Calkins, New York City; J. W. Webster, Boston, Mass.. J. N. Camp, Burlington, Vt.; T. W. Bicknell, Providence, R. I.; J. E. Edgerly, Manchester, N. H.; A. E. Winship, Bridgewater, Mass.; E. A. Hubbard, Springfield, Mass.; C. P. Rugg, New Bedford, Mass.

George T. Littlefield, of Charlestown, presented the customary resolutions of thanks, and they were unanimously adopted.

Rev. George Trask, in behalf of the people of Fitchburg, thanked the members of the Institute for coming there. He thought the meeting had "gone to the coats of the moral stomach," and was adapted for usefulness.

Charles Hammond, of Monson, presented resolutions in reference to the death of Samuel H. Taylor, LL. D., Prof. John S. Woodman, and Rev. Samuel J. May, former members of the Institute.

Mr. Hammond accompanied these resolutions with appropriate remarks. He was followed by Mr. Kneeland, Joseph May, of Syracuse, N. Y., Rev. George Trask, of Fitchburg, and Geo. A. Walton.

N. A. Calkins, of New York City, read a carefully prepared paper on "Does Object Teaching hold a Philosophical Relation to the Natural Development of Mind and the Acquisition of Knowledge?" This he argued affirmatively, maintaining that object-teaching furnishes the best conditions for obtaining the best results in education.

Ex-Gov. Washburn, of Cambridge, a member of the Board of Education, being called upon by the President, spoke as follows: —

Mr. President, — I came here to show my appreciation of, and to enjoy the meeting of this Institute; and having done so, I do not recognize your right to call upon me me for anything further.

I have been too long connected with this Institute to come here at this or any of its meetings, however, without being interested in its work; and, knowing how much it has done for the cause of education in Massachusetts and New England, and beyond it, I confess I heard with regret that there was a supposition on the part of any one that the Institute might be given up; that some thought other associations had taken its place, and therefore its meetings might be discontinued. I hope for one that that thought will not be entertained. I believe it *has done much good*, and that, if for no other reason, it should be kept alive for the good it has done. But, more than that, I believe it has the capacity still of doing so much good that the country cannot afford to be without it.

I have had an opportunity to watch and to observe a little, outside of my own immediate neighborhood. A feeling of interest in the subject of education has grown in the world in favor of public and free education. And knowing, as I do, how much Massachusetts, how much New England and all their educational associations have done in spreading abroad that feeling of respect for, and appreciation of, a free, public education, I should regret most deeply that Massachusetts or New England should ever take one backward step, for fear of the consequences or influences beyond their limits.

Sir, it was my privilege a year ago to be where I was witnessing, and had an opportunity to observe, the general expression of interest that was felt abroad upon the subject of public education. It seems that Europe has at last found out how it is that she must reach that degree of civil liberty and public happiness that she has been envying the United States for, so long; she has found out that it is by means of public education.

In Italy I was told by the Minister of Public Instruction, who is a member of the Ministry of the King, that within the last four years they have established in every portion of Italy a free school, and have over sixteen Normal Schools. And now that we know Italy has broken away from the influence of the Pope as to matters of education, we cannot but congratulate her on the progress she has made.

But more marked than that was the discussion which was going on in London on the subject of free schools in England. The influence of America has been felt in England, and is moving it to the very centre; and efforts have been made, especially within the last year, which indicate that they have now become convinced of the absolute necessity, if they would keep up with the rest of the world, of establishing free schools. The struggle was a long one; they had old prejudices, religious prejudices. They had an idea that was so prevalent, and so tenaciously held, that religious instruction must be inculcated along with general literature, and it was almost impossible to overcome it, until they began to be convinced by the political progress, that sectarian teaching must be laid aside,

and that the doors of the schools must be open to all. And this is the most important fact that has occurred in England for a long time, and will do more to carry out the true republican principles that have done so much to elevate America, than anything whatever.

And this leads me to speak of the subject that was discussed yesterday, as to the necessity and importance of educating all classes here, educating them as they are now doing it in England, — not limiting it to mere voluntary action, but requiring it to be done. Sir, I know this subject has been discussed a great deal, the question whether we have a right to take the child from his toil and put him to school and thereby fit him to be a man, and a good citizen of the Commonwealth. Now I have no more doubt of that than I have that government has a right to protect itself. (Applause.) You do not hesitate to take a grown man from his business, and call upon him to yield his private business for the general good. I hold that the parent does not own the child, as if a slave. God has placed us in families; society has thrown its protection around families; but parents forget the corresponding obligation to educate the children whom God has given. They ought to be taught that government has a right to take these children from them if necessary, to fit them to become useful men and women in society. (Applause.)

Sir, the great defect in our system is this, that there are no means provided by which a large class of our children may be so controlled that they cannot escape from the schools, and from acquiring any education. They are now growing up dangerous members of society. Why, sir, in Boston, I see by the returns of the Superintendent of Schools, there are more than 7,000 children that don't go to school at all; in Massachusetts there are almost 30,000, of school age, that are in no school. How are they growing up? Your children who can be well dressed can go to school; but take the children who are growing up in the streets, who have no parents; or, if any, those who are worse than none, and have no chance for acquiring an education, and what are they to do unless a greater effrot is made to compel them to attend school? I think I see daily as many as thirty young children in Cambridge, near my office, where a public work is going on, who are constantly employed in driving carts backward and forward. Now if these children are to be allowed to grow up without education, what is the consequence? Is society safe? Look abroad: see the condition of society there. Sir, it seems to me that something effectual ought to be done.

Now I come back to the point at which I began. This institution is a power in this land. It is not the men who are in business, who have no opportunity to study this subject, or the mechanics, who have no access to the public, that can instruct the people on this subject of education. But it is the teachers, those who are connected with this and kindred associations, those who are actually engaged in teaching, who can make known to the public what is proper to be done; and it is their duty to do it. The arguments that they can urge will be a sure means of carrying conviction to the public mind, so that something will be done.

In what condition shall we be hereafter? Foreigners are coming here by thousands, without education; their children have no desire to study; the parents have no disposition to send their children to school; their early associations have given no impulse for mental improvement, and we are in danger of falling into a condition which the lover of his country must shudder to anticipate. Instead of doing all that should be done for saving the young and making them good citizens, we are shrinking from the work of compelling them to attend school, we are nursing a class of ignorant ones, too many of whom will almost inevitably become paupers or criminals in the community.

It seems to me, that, constituted as this Institute is, with these great questions before the public, — questions vital to the best interest if not the life of society, — it is a duty that each member should take upon himself, and should carry home with him as an undoubted conviction, that we have not yet reached the stage in popular education that we must attain to, for the best welfare, prosperity, and blessing of the Commonwealth. (Applause.)

David H. Mason, of Newton, United States District Attorney, and a very active member of the Massachusetts Board of Education, was next called upon.

After speaking of teachers, their criticisms of each other, their work, and showing the great gain in the amount accomplished by our schools, he proceeded as follows: —

If I were to speak of our system as being deficient in anything, it is that it does not involve technical education. We have developed men and women. They have the fundamental principles of knowledge, they have the principles of science, they go out with independent minds, but without any knowledge of what they are to do in life, what pursuit they are to engage in, and without the practical scientific knowledge necessary to enable them to enter upon the active duties of life; and then they have to begin an actual apprenticeship. Our boys that go from our high schools must spend five years in the art of merchandising, in order to learn that art. In Antwerp there is a school of nine hundred persons learning the arts of weaving and dyeing. A child who graduates from the public school goes to the technical school to learn the arts; and within five years, two thousand five hundred have graduated from the Antwerp schools, which have done more than all other things, to raise that province above all others, in this respect, in the civilized world.

Our Yankee men and women, after having attended school for the proper period, have to choose what they will do, and then prepare for it, and then do it. As long as we had only the small number of people of the early period of our history, this might do; but now that we have this large extent of country, with forty millions of people, we must attend to business and manufacturing; and not only have agricultural schools, but scientific schools for training in every department of life.

I have had the gratification, within a few days, at Worcester, of seeing the first graduate in North America in the art of dyeing. They say we cannot dye at all in the United States; that the atmosphere affects the colors. Is that so? In Germany and other parts of Europe they have schools where scholars have

the advantage of three years' instruction under the best of teachers; then they serve an apprenticeship, and then can practise the art. But how to engraft this on our system it is difficult to tell. Can we do it, and preserve our Yankee independence, our New England determination of will? We must do all that the schools now do, and must add the other, or we cannot take our place in the business world.

Nathaniel Allen, of West Newton, who had just returned from his two years' residence in Europe, responded to the President's call, as follows: —

The subjects presented by the gentlemen who have preceded me are of very great importance.

Two years ago, after making my arrangements to spend two years with my family in Europe, my friend, Dr. Barnard, was kind enough to commission me to visit the schools in various foreign countries, which commission was renewed by Gen. Eaton.

Spending the first year in Germany, I am happy to state that I had an opportunity to visit the schools, from the lowest to the University, in nearly all the States of Germany. It is true that we have much to do to raise our schools as he gentlemen who preceded me have said, and the people are ready for this. But who shall inaugurate these changes? Those two gentlemen who have just addressed us, occupying the positions which they do, with their Secretary, are in the exact position to inaugurate these reforms. We know what was done by Horace Mann: how he vivified and electrified the whole community. And though the wave of progress has gone steadily on since his time, it has not reached high enough; and to-day, if the work could be started by the Board of Education, through their Secretary, we could accomplish all that is needed for technical schools. In the countries of Europe, I have visited these schools. They were first started in France. In England they have also succeeded. In South Kensington a centre of influence, there are two hundred young ladies attending to drawing, working upon machinery. There is an immense amount of work to be done in this country in educational reform. Not but that the schools of Massachusetts will compare well with the schools of any country; for England has not completed the reform by any means; she is in the very heat of the battle. Those gentlemen who are working for this reform in England encounter mountains of prejudice which they do not expect to to overcome for years. Mr. Foster told me, "We are making a beginning"; and Mr. Mundella, who visited you last year, thought you were fifty years in advance of them.

The meeting was then closed in the usual manner, by singing the Doxology, "Be thou, O God, exalted high," etc.

FREE INSTITUTE OF INDUSTRIAL SCIENCE.

This institution, located at Worcester, has been in existence three years, and on the 26th of July graduated its first class. It has in all respects met the expectations of its founders and its numerous friends. The number of

students the present year has been eighty-two. The best instruction is given in mathematics, mechanics, physical and natural sciences, drawing, and modern languages. A machine shop for iron and wood working is connected with the school, where the students can gain practical knowledge and skill.

The board of instruction consists of Charles O. Thompson, A. M., Principal and Professor of Chemistry; George I. Alden, B. S., Professor of Mechanics and Physics; George E. Gladwin, Professor of Drawing; John E. Sinclair, B. S., Professor of Mathematics and Civil Engineering; Mrs. John E. Sinclair, Teacher of French and German; Frank A. Sherman, B. S., Instructor inMathematics; Milton P. Higgins, B. S., Superintendent of Machine Shop.

The graduating class consisted of fifteen members, their names and special departments as follows: — *Architecture* — George H. Nichols, Oxford; Everett J. Bardwell, Worcester. *Chemistry* — Elmer P. Howe, Worcester; Henry P. Armsby, Millbury. *Civil Engineering* — Frederick W. Bateman, Still River; Robert E. Holgate, Fitchburg; George A. Thompson, Worcester; Frank O. Whitney, Fitchburg. *Design* — Walter L. Chaloner, Worcester. *Mechanics* — William R. Pillings, Worcester; Edward K. Hill, North Brookfield; Samuel S. Jennison, Templeton; William A. Nelson, Sterling; Edward F. Tolman, Worcester; Edwin H. Whitney, Harvard. These young gentlemen have the honor of being the first graduates of the first Industrial School on the continent; and although Prof. Thompson apologized for them as having been the victims of the experiments of the managers throughout their whole course, we hardly think they will ever know wherein they were victimized.

INTELLIGENCE.

J. C. GREENOUGH, of the Westfield Normal School, has received and accepted the appointment of Principal of the Rhode Island Normal School at Providence. An excellent appointment. Mr. Greenough has shown himself a wise and skilful teacher, and will carry into his new position the results of much thought, wide observation, and large experience.

A. E. WINSHIP, a successful and popular teacher in the Bridgewater Normal School, has resigned his position to connect himself with W. A. Wilde & Co., No. 1 Cornhill, as New England agent for "The American Educational Series." The *Teacher* has received so many favors at his hand, that it heartily wishes him success in whatever he undertakes.

NATHANIEL T. ALLEN, having spent two years in Europe, making himself acquainted with methods of instruction and school systems, will now resume his old work and carry on his school at West Newton as heretofore. This school, successful and popularas it has been, he hopes to make still more worthy the confidence of the community.

LA ROY F. GRIFFIN has resigned the principalship of the Beverly High School, to take a position in the Phillips Academy, Andover.

A. E. SLOAN, A. M., recently connected with the Boston schools in the

department of physical and vocal culture, has been elected President of the Ohio Female College, near Cincinnati.

D. W. FISKE, of Bristol, N. H., has been appointed Principal of the High street Grammar School, in Fall River.

THE *Chicago Schoolmaster* will hereafter be published at Normal, Ill., and edited by AARON GOVE, assisted by E. C. HEWITT. The *Schoolmaster* takes a high rank among educational journals.

MEETING OF THE STATE ASSOCIATION.

THE twenty-seventh Annual Meeting of the *Massachusetts State Teachers' Association* will be held in Boston on the 19th, 20th, and 21st of October, and will be conducted upon the same plan as last year. The programme will be published in our next number.

BOOK NOTICES.

THE STUDENT'S ELEMENTS OF GEOLOGY. By Sir Charles Lyell, Bart., F. R. S. With more than six hundred illustrations on wood. New York: Harper & Brothers.

In no science is progress more marked than in that of Geology. Discoveries are made which open up a new class of facts, and require a modification of the old theories. Sir Charles Lyell, for more than a quarter of a century, has been the great authority in geological science. He has within a few years rewritten his geological works, and brought them into line with the present state of that science. The work before us is a recast of his "Elements of Geology." Much that was theoretical and controversial has been omitted, new facts introduced, and the work generally made more serviceable to the beginner. Hence the change of title to "Student's Elements of Geology." Nothing need be added in regard to its value. American students will thank the Messrs. Harper for bringing it within their reach, and when the *furore* for "short courses" of study is over, it and books like it will find their way into our High Schools and Academies.

A TERRIBLE TEMPTATION, by Charles Reade, comes to us in two forms from the Harpers, – one in paper covers, the other neatly bound in cloth. It is to be hoped that when Charles Reade has "a terrible temptation" to write another novel, he will in yielding to it keep within the bounds of decency. This story, in some respects, shows his characteristic power; but in others can only be accounted worthy a fifth-rate sensational writer for the coarsest readers.

A WILLIAMS & CO., at 135 Washington street, are the agents for publications of the Harpers.

THE FRANKLIN FIFTH READER. With an introductory Treatise on Elocution, by Prof. Mark Bailey. By G. S. Hillard. Boston: Brewer & Tileston.

This is intended to occupy a place between the Intermediate and Fifth Readers of Hillard's Series, containing pieces somewhat easier of compre-

hension than those of the Fifth. We see not why it may not take the place of the Fifth, as a faithful use of it would certainly open the way for the Sixth. Coming from a publishing house in the city where Franklin was born, where Franklin medals have been distributed in accordance with his bequest, and where Franklin's statue stands front of the City Hall, we suppose it has a good right to the name of "Franklin."

The introductory treatise, we observe, is that of the Sixth Reader, but a little abbreviated. A few of the selections are from the Fifth Reader, but most of them are new. There is less of the heavy and sentimental, and more of the descriptive and narrative, — the pieces generally being of a sprightly, healthful tone, and such as commend themselves to the young. The book impresses us very favorably. It is handsomely printed, and makes a better appearance than the old Fifth.

EASY AND PRACTICAL FRENCH GRAMMAR. By Dr. C. Ploetz, late Professor of French at the Royal French College in Berlin. Boston: Schoenhof & Moeller, 40 Winter street.

We are inclined to think the publishers have done a good thing in giving us Dr. Ploetz's Grammar, adapted to American schools. In learning French, or any language, three things are wanted, — pronunciation, grammar, and a vocabulary of words. These are taught simultaneously, one principle at a time. Different peculiarities of pronunciation are introduced in the lessons, till the whole is mastered. So with grammatical rules, and so with idioms. French terms are used all the way through. There is no dictionary added, but the words of each lesson are to be learned and used till they become familiar. Questions in French follow the lessons, to be answered in French; and from beginning to the end, the aim of the book is to give the learner the words in common use, and facility in using them. The book is not bulky, — 111 pages of lessons, and 20 pages of reading.

ATHALIE, a tragedy, by J. Racine. With a complete commentary for the use of students, by Edward S. Jaynes, Professor of Modern Languages in Washington and Lee University, Va. New York: Holt & Williams.

A nice edition in paper covers. The design of the editor is to enable the intelligent student of French to read the French classical dramatists understandingly. This play is intended to be introductory to the reading of the works of Racine. The notes cover about thirty pages, and are explanatory of the play, of idioms, grammatical forms, and peculiarities. They are full enough to enable those who have made some progress in French to read the play with pleasure and profit.

A CONDENSED SCHOOL HISTORY OF THE UNITED STATES, constructed for definite results in Recitation, and containing a new method of topical reviews. By William Swinton, A. M. New York: Ivison, Blakeman, Taylor and Company.

The distinguishing feature of this book, is that historical facts are given in the plainest and most concise language, without any attempt at fine writing, or even to arrange them in good narrative form. The author claims to have introduced a new method of "Topical Reviews"; but we think he will find nearly the same thing in one form or another in some other books. We

have used almost precisely the same with our classes, arranging the facts from "The Historical Companion."

Is the plan upon which this book is made a good one for ordinary school purposes? If it is, nothing is necessary but to commend the book. The author gives the prominent historical facts in plain English, and gives them in their proper sequence, and by his frequent *resumés* impresses them upon the memory. It may be he gives too many of these facts for a Grammar School course. It is a good deal of work for boys and girls to accomplish three hundred pages of historical matter such as this. Now, if the "definite results" aimed at are bald statements of the facts embraced in the assigned lesson, and, in the end, from eighty to one hundred per cent of correct answers from scholars, when examined by questions covering the ordinary ground, the book is exceedingly well made to aid in producing them.

There is, however, a higher class of "definite results" which ought to be reached by the students of history, and these come not, we think, from a book of this sort. A teacher may, if he will, supply what the book lacks. He may take these "dry bones" of history, clothe them with flesh, and breathe into all the breath of life. He may even require the scholars to do this, directing them what books or portions of books to read in order to gain the requisite knowledge; thus making this little work literally a text-book, — and an excellent one it would be. But to be studied as ordinary histories are studied, we should hardly care to introduce it into the schools.

A Brief History of the United States. For Schools. New York: A. S. Barnes & Co.

This is called "Barnes's one-term History." It does not appear who is the author. The general plan is much like that of the above, but it is carried out in a different manner. The paragraphs are longer, the style less simple. Its summaries, maps, lists of questions, especially the list called "Historica-Recreations," are commendable features. Still, in regard to the plan of the book and its use in schools, our opinion would be much the same as that expressed of the "Condensed History."

We are sorry, however, to notice in the present work some infelicities of expression, and errors of statement. For instance, from the note on the Puritans, on page 53, the reader would get the idea that all the Puritans of England went to Holland, and all belonged to the Rev. John Robinson's flock. Then again, on page 56, in a note referring to the Massachusetts Bay Colony, the author states that "for eight years the Puritans had no pastor." These errors seem to have risen from the author's not distinguishing between the Puritans as a body, and the Plymouth settlers. He calls the constitution adopted by the Connecticut colony, "the first instance in all history of a written constitution framed by the people"; and yet he calls the compact made and signed on board the Mayflower a "constitution." Such an expression as this in regard to the late rebellion, — "strange to say, the masses on both sides were stirred by the same patriotic impulse, love of country," — will be rather confusing to the youthful mind, to say the least.

Art: Its laws, and the reasons for them, collected, considered, and arranged for General and Educational Purposes. By Samuel T. Long, counsellor at law, student of the Royal Academy, and pupil of the late Gilbert Stuart Newton, Esq. Boston: Lee and Shepard.

The author's manuscript was read by George S. Hillard, Rev. A. P. Pea-

body, D. D., Geo. B. Emerson, Rev. S. K. Lothrop, D. D., and George Gannett, all of whom were so well pleased with it as to recommend publication. Mr. Emerson wrote, "I believe that any person who should carefully read it, would so understand the principles, and have his eyes opened to the beauties of art, that he would never look upon a picture, a statue, or a noble building, without more interest, and a higher power of appreciating and enjoying it, than he possibly could have if he had not read your book, or a large number of valuable ones in its place."

An examination of the work has convinced us that these words of commendation are deserved. We sought, not many months since, for a book of this kind, and our efforts were not crowned with success. There is certainly need of a text-book for our High Schools, setting forth correctly the principles of art, and intelligently discussing their application, — and that in terms within the comprehension of the ordinary mind. The work before us does this in a very satisfactory manner. Painting, sculpture, and architecture come within its province. Many works of art are described, and some of them critically analyzed, enabling the student or reader to appreciate their beauties, and, what is better, teaching him how to look at and understand similar works. We welcome the book as likely to render important aid in the better cultivation of the æsthetic faculty.

THE FIFTH READER. By Lewis B. Monroe. Philadelphia: Cowperthwait & Co.

Mr. Monroe was for some years the Superintendent of Physical and Vocal Culture in the Public Schools of Boston. He gives, in the first part of this book, the series of exercises he found best adapted to his purpose in bringing about the results he aimed at. The value of these exercises has been sufficiently attested.

In making his selection of pieces for reading, Mr. Monroe seems to have been guided by an excellent judgment. They are such as are adapted to the youthful mind and youthful tastes. There is a geniality and sprightliness about a large class of them absolutely refreshing. It is evident that he believes that scholars will read what comes within their comprehension, — what they can enter into, — with more interest, with better tone and accent, than what they do not understand and care nothing about. His book will stand the test of a critical examination, and, we believe, the test of use in the school-room.

MAP OF THE SOLAR SYSTEM, and signs of the Zodiac. Published by G. Owen.

A small mounted chart, very convenient to hang up before a class to give an idea of the positions of the planets and their movements, and to show the position of the zodiacal signs.

THE SCHOOL FESTIVAL. We hardly think all our readers know what a nice little publication this is. It is issued quarterly at Chicago, and is conducted by Alfred L. Sewell, of that city, and Mrs. M. B. C. Slade, of Fall River, Mass. The subscription price is *fifty cents*. Not only does it give pleasant and rational exercises for our public schools, it also renders very acceptable service to the Sunday School Concert or Exhibition. Its dialogues are of the right sort, and its directions for producing scenic effects helpful. Eastern subscriptions may be sent to Mrs. M. B. C. Slade, Fall River, Mass.